

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated nucleic acid molecule that encodes the amino acid sequence of SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~; (b) an isolated nucleic acid molecule that encodes a fragment of at least 6 amino acids of SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~; (c) an isolated nucleic acid molecule which hybridizes to the complement of a nucleic acid molecule comprising SEQ ID NO: ~~1, 3, 6, 8, 10 or 12~~; (d) an isolated nucleic acid molecule which hybridizes to the complement of a nucleic acid molecule that encodes the amino acid sequence of SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~; and (e) an isolated nucleic acid molecule that encodes a protein that exhibits at least about 35% amino acid sequence identity to SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~.

2. (currently amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated nucleic acid molecule that encodes the amino acid sequence of SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~; and (b) an isolated nucleic acid molecule that encodes the polypeptide of SEQ ID NO: ~~2, 4, 5, 7, 9, 11 or 13~~.

3. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 25-429 of SEQ ID NO: 1.

4. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 25-429 of SEQ ID NO: 1.

5. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 25-432 of SEQ ID NO: 1.

6. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 294-743 of SEQ ID NO: 3.

7. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 294-743 of SEQ ID NO: 3.

8. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 294-746 of SEQ ID NO: 3.

9. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 1238-2215 of SEQ ID NO: 3.

10. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 1238-2215 of SEQ ID NO: 3.

11. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 1238-2218 of SEQ ID NO: 3.

12. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 377-1948 of SEQ ID NO: 6.

13. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 377-1948 of SEQ ID NO: 6.

14. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 377-1951 of SEQ ID NO: 6.

15. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 162-632 of SEQ ID NO: 8.

16. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 162-632 of SEQ ID NO: 8.

17. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 162-635 of SEQ ID NO: 8.

18. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 373-648 of SEQ ID NO: 10.

19. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 373-648 of SEQ ID NO: 10.

20. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 373-651 of SEQ ID NO: 10.

21. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule consists of nucleotides 1-1662 of SEQ ID NO: 12.

22. (original) The isolated nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises nucleotides 1-1662 of SEQ ID NO: 12.

23. (previously presented) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule is operably linked to one or more expression control elements.

24. (previously presented) A vector comprising an isolated nucleic acid molecule of claim 1.

25. (previously presented) A host cell transformed to contain the nucleic acid molecule of claim 1.

26. (original) A host cell comprising the vector of claim 24.

27. (original) The host cell of claim 26, wherein said host is selected from the group consisting of prokaryotic host cells and eukaryotic host cells.

28. (previously presented) A method for producing a polypeptide comprising culturing a host cell transformed with the nucleic acid molecule of claim 1 under conditions in which the protein encoded by said nucleic acid molecule is expressed.

29. (original) The method of claim 28, wherein said host cell is selected from the group consisting of prokaryotic host cells and eukaryotic host cells.

30. (original) An isolated polypeptide produced by the method of claim 28.

31. (original) An isolated polypeptide or protein selected from the group consisting of an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2, 4, 5, 7, 9, 11 or 13, an isolated polypeptide comprising a fragment of at least 6 amino acids of SEQ ID NO: 2, 4, 5, 7, 9, 11 or 13, an isolated polypeptide comprising conservative amino acid substitutions of SEQ ID NO: 2, 4, 5, 7, 9, 11 or 13 or naturally occurring amino acid sequence variants of SEQ ID NO: 2, 4, 5, 7, 9, 11 or 13, and an isolated polypeptide exhibiting at least about 35% amino acid sequence identity with SEQ ID NO: 2, 4, 5, 7, 9, 11 or 13.

32. (original) An isolated polypeptide or protein selected from the group consisting of an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2, 4, 5, 7, 9, 11 and 13.

33. (previously presented) An isolated antibody that binds to a polypeptide of claim 30.

34. (original) An antibody of claim 33 wherein said antibody is a monoclonal or a polyclonal antibody.

35. (previously presented) A method of identifying an agent which modulates the expression of a nucleic acid encoding a protein of claim 31, comprising:
exposing cells which express the nucleic acid to the agent; and
determining whether the agent modulates expression of said nucleic acid, thereby identifying an agent which modulates the expression of a nucleic acid encoding the protein..

36. (previously presented) A method of identifying an agent which modulates at least one activity of a protein of claim 31, comprising:
exposing cells which express the protein to the agent;
determining whether the agent modulates at least one activity of said protein, thereby identifying an agent which modulates at least one activity of the protein.

37. (original) The method of claim 36, wherein the agent modulates one activity of the protein.

38. (previously presented) A method of identifying binding partners for a protein of claim 31, comprising:
exposing said protein to a potential binding partner; and
determining if the potential binding partner binds to said protein, thereby identifying binding partners for the protein.

39. (previously presented) A method of modulating the expression of a nucleic acid encoding a protein of claim 31, comprising:
administering an effective amount of an agent which modulates the expression of a nucleic acid encoding the protein.

40. (previously presented) A method of modulating at least one activity of a protein of claim 31, comprising:
administering an effective amount of an agent which modulates at least one activity of the protein.

41. (previously presented) A non-human transgenic animal modified to contain the nucleic acid molecule of claim 1.
42. (original) The transgenic animal of claim 41, wherein the nucleic acid molecule contains a mutation that prevents expression of the encoded protein.
43. (previously presented) A method of diagnosing a disease state in a subject, comprising determining the level of expression of a nucleic acid molecule of claim 1.
44. (original) The method of claim 43, wherein the disease state is allergic hypersensitivity.
45. (original) The method of claim 43, wherein the disease state is seasonal rhinitis
46. (original) The method of claim 43, wherein the disease state is asthma.
47. (original) The method of claim 43, wherein the disease state is urticaria or atopic dermatitis.
48. (original) The method of claim 43, wherein the disease state is mastocytosis.
49. (previously presented) A composition comprising an isolated nucleic acid molecule of claim 1 and an aqueous carrier.
50. (previously presented) A method for the treatment or prevention of a disease state in a subject, comprising administering to said subject an effective amount of a nucleic acid molecule of claim 1 or an agonist or antagonist thereof, thereby effecting said treatment or prevention of a disease state in said subject.
51. (original) The method of claim 50, wherein the disease state is allergic hypersensitivity.

52. (original) The method of claim 50, wherein the disease state is seasonal rhinitis.

53. (original) The method of claim 50, wherein the disease state is asthma.

54. (original) The method of claim 50, wherein the disease state is urticaria or atopic dermatitis.

55. (original) The method of claim 50, wherein the disease state is mastocytosis.

56. (original) A computer system comprising

(a) a database containing information identifying the expression level in a tissue or at least one mast cell of a set of nucleic acids comprising at least one nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, 6, 8, 10 and 12 or a complement thereof; and

(b) a user interface to view the information.

57. (original) A computer system comprising:

(a) a database containing information identifying the expression level in a tissue or at least one mast cell of a set of nucleic acids comprising at least one nucleic acid sequence encoding a protein selected from the group consisting of SEQ ID NOs: 2, 4, 5, 7, 9, 11 and 13 or a complement of said nucleic acid sequence; and

(b) a user interface to view the information.

58. (previously presented) The computer system of claim 56, wherein the database further comprises sequence information for said at least one nucleic acid sequence.

59. (previously presented) The computer system of claim 56, wherein the database further comprises information identifying the expression level for said at least one nucleic acid sequence in at least one normal mast cell.

60. (previously presented) A computer system of claim 56, wherein the database further comprises information identifying the expression level of said at least one nucleic acid sequence in at least one mast cell from a patient with allergic hypersensitivity.

61. (original) A computer system of claim 60, wherein the patient with allergic hypersensitivity has rhinitis, asthma or urticaria.

62. (previously presented) A computer system of claim 56, further comprising records including descriptive information from an external database, which information correlates said genes to records in the external database.

63. (original) A computer system of claim 62, wherein the external database is GenBank.

64. (original) A method of using a computer system of claim 56 to present information identifying the expression level in a tissue or at least one mast cell of a set of nucleic acids comprising at least one nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, 6, 8, 10 and 12 or a complement thereof, comprising comparing the expression level of at least one nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1, 3, 6, 8, 10 and 12 or a complement thereof in the tissue or at least one mast cell to the level of expression of the nucleic acid sequence in the database.

65. (original) A method of using a computer system of claim 57 to present information identifying the expression level in a tissue or at least one mast cell of a set of nucleic acids comprising at least one nucleic acid sequence encoding a protein selected from the group consisting of SEQ ID NOs: 2, 4, 5, 7, 9, 11 and 13 or a complement of said nucleic acid sequence, comprising comparing the expression level of at least one nucleic acid sequence encoding a protein selected from the group consisting of SEQ ID NOs: 2, 4, 5, 7, 9, 11 and 13 or a complement of said nucleic acid sequence in the tissue or at least one mast cell to the level of expression of the nucleic acid sequence in the database.

66. (previously presented) A method of claim 64, wherein the expression level of at least two nucleic acid sequences are compared.

67. (original) A method of claim 66, wherein the expression level of at least five nucleic acid sequences are compared.

68. (original) A method of claim 67, wherein the expression level of all the nucleic acid sequences are compared.

69. (original) A computer system comprising:

the nucleotide and/or amino acid sequence of at least one of SEQ ID NOs: 1-13 and a user interface to view the information.

70.(previously presented) A method of diagnosing a disease state in a subject, comprising determining the level of expression of a protein of claim 31.

71.(previously presented) A method for the treatment or prevention of a disease state in a subject, comprising administering to said subject an effective amount of a protein of claim 31 or an agonist or antagonist thereof, thereby effecting said treatment or prevention of a disease state in said subject.